Secondary poisoning to Bald Eagles from Pentobarbital

by Liz Jozwiak

Last November I was called out by the Skyview Ski Team to rescue an injured eagle they found lying on the ice on Arc Lake. At first it appeared not to be breathing, but upon closer examination it was alive but unconscious and hypothermic with a very slow and depressed respiration rate. I knew almost immediately what it was suffering from as I had worked on an eagle with a similar set of symptoms earlier in 2008 in almost the same area. The eagle had been accidentally poisoned by feeding on a euthanized animal carcass that was later identified as being from a euthanized dog.

I quickly took the bird to our laboratory at the Kenai NWR and started to gradually warm him on a heating pad that I placed under some blankets. The bird was still unconscious which made it easy to keep the bird's head and chest elevated so I could regularly administer fluids and a solution of activated charcoal every few hours. At some point that first night, the eagle regurgitated a chunk of the meat it had consumed. I continued to give the eagle fluids for the next three days as the bird remained unconscious… it was sleeping off the drugs it still had in its system. By the fourth day, the bird was beginning to open his eyes and lift his head. On the fifth day the eagle was attempting to stand but kept losing its balance, and slept some more. Finally one week later, he was able to stand.

This was one lucky bald eagle as it survived secondary poisoning from ingesting meat from a euthanized dog carcass. The euthanasia drug that is most commonly used by veterinarians and animal control officers is Pentobarbital. Pentobarbital-euthanized carcasses are very poisonous to scavenging wildlife.

Euthanasia by sodium pentobarbital injection is a humane way to end the life of a suffering animal, and is recommended for many species by the American Veterinary Medical Association. But sometimes this compassionate act can have the unintended consequence of causing the premature death of other animals.

Residue from sodium pentobarbital remains in the tissues of animals long after they have been euthanized. Well-vascularized organs such as the liver will have especially high concentrations of pentobarbital, but other tissues will also contain residues. When a scavenger feeds on the carcass, the degree of intoxication will depend on the amount and type of tissue it ingests. A lethal dose for a bird is generally much lower than the amount administered to euthanize a dog or cat.

Birds may die immediately after consuming tissues containing pentobarbital, or they may fly several miles and die due to vehicle collision, electrocution, predation, drowning, or hypothermia while they are sedated by the drug. Species confirmed with accidental pentobarbital poisoning include bald eagles, golden eagles, and other scavenging birds, such as ravens and magpies. Many other species of avian and mammalian scavengers, including pet dogs and cats, may become intoxicated or die after ingestion of carcasses.

The fatal poisoning of more than 130 eagles in 16 states and British Columbia is known to have occurred due to consumption of contaminated carcasses.

Improper disposal of euthanized animals may lead to prosecution under state and federal laws, including the Golden and Bald Eagle Protection Act, and the Migratory Bird Treaty Act. These laws are enforced by the USFWS and carry penalties of fines and imprisonment for criminal or civil offenses resulting in harm to wildlife.

In most cases, the poisonings are inadvertent and the result of poor communication. Often, animal owners are unaware that a pentobarbital-euthanized carcass can be poisonous to carrion feeders, and must be made inaccessible through rapid burial or other means of disposal. Tragically, in several past cases in the lower 48 well intentioned farmers had purposely left out carcasses because they thought that the local eagle population would benefit from this extra food.

In other instances of poisoning, small animal carcasses from veterinary practices or humane shelters have been legally deposited in a landfill but then left exposed to scavengers because they were not covered over in a timely manner by the landfill workers.

The first confirmed case of a poisoned bald eagle was discovered in Soldotna in the 1980s. At that time the USFWS, the KPB Soldotna Landfill, the two local animal shelters, and the local veterinary clinics acknowledged that this was an important issue to resolve, and

worked successfully towards eliminating the chances of any animal becoming ill or dying from secondary pentobarbital poisoning from a euthanized pet or farm animal.

For example, the Soldotna Landfill installed a "covered carcass bin" behind their building where all euthanized carcasses are to be placed. This bin is driven out to the landfill cell and the contents deeply buried three to four feet at the end of each day. Most veterinary clinics have purchase their own incinerators, and therefore disposal is not an issue. The animal control officers in our area are aware of proper disposal procedures and adhere to them without question.

These recent two eagle poisonings however, document the fact that eagles are still periodically able to scavenge euthanized animals from either inside or near the Soldotna landfill. The U.S. Fish and Wildlife Service is trying to find out how and why.

I suspect that the weak link may be the pet owners themselves who are unaware of the potential toxicity of their euthanized pet when they choose to take it home for burial from the vet clinic. These owners decide instead to dispose of the carcass at the landfill because they are unable to bury their pet as earlier intended. But unless you are an animal control agent or a veterinarian, you may not be aware of the "carcass bin" behind the landfill building. The poisoned carcass then enters the landfill without any knowledge to the landfill workers and this provides easy access to scavengers.

In the last few weeks I have been contacting the veterinarians in our area to help us launch an educational effort to inform clinic clients and the local community of the potential risk of unintentional pentobarbital poisoning to wildlife and methods of proper landfill disposal or burial. The response has been very positive so far.

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